

IN THE CLAIMS

Please cancel Claims 25-32 without prejudice or disclaimer.

Claim 1 (currently amended): A speech recognition system comprising:
a conversion circuit operative to convert a speech waveform into a digital pulse waveform; and
an analysis system that analyzes one or more characteristics of the digital pulse waveform to determine a spoken word or an unspoken word corresponding to the speech waveform from a set of selectable words, the analysis system operative to adjust a threshold level in accordance with said spoken word or said unspoken word and corresponding to converting the speech waveform into a digital pulse waveform to analyze portions of the speech waveform at different amplitude levels.

Claim 2 (original): The system of claim 1, the conversion circuit comprising a comparator that receives the speech waveform and compares the speech waveform to the threshold level provided by a threshold level shifter circuit.

Claim 3 (original): The system of claim 2, the threshold level shifter circuit operative to change the threshold level based on a state of a single digital output.

Claim 4 (original): The system of claim 2, the threshold level shifter circuit operative to modify a threshold level of the comparator at one or more threshold levels.

Claim 5 (original): The system of claim 2, the threshold level shifter circuit operative to change between three threshold levels based on a state of a single digital output having a high impedance state, a low digital state and a high digital state.

Claim 6 (original): The system of claim 2, the threshold level shifter circuit operative to change between three threshold levels based on a state of two digital signals.

Claim 7 (original): The system of claim 1, further comprising a microphone that converts a spoken word into an electrical signal and an amplifier that amplifies the electrical signal into a speech waveform having one or more characteristics at distinguishable levels, the amplifier coupled to the comparator.

Claim 8 (original): The system of claim 1, the one or more characteristics being at least one of speech waveform modulation amplitude, speech waveform modulation frequency and speech waveform duration.

Claim 9 (original): The system of claim 1, the analysis system comprising a microcontroller programmed to analyze one or more characteristics of the digital pulse waveform and compare the one or more characteristics to stored characteristics associated with a set of words to determine the spoken word from the set of words.

Claim 10 (original): The system of claim 1, the analysis system comprising a control logic component operative to analyze one or more characteristics of the digital pulse waveform and compare the one or more characteristics to stored characteristics associated with a set of words to determine the spoken word from the set of words.

Claim 11 (currently amended): A system for distinguishing between a spoken word and a unspoken word, the system comprising:

an amplifier that amplifies an electrical signal corresponding to a spoken word and provides a speech waveform having one or more characteristics at distinguishable levels;

a comparator that converts the speech waveform into a digital pulse waveform based on comparing the speech waveform to a threshold level; and

a threshold level shifter circuit that provides a voltage corresponding to the threshold level, the threshold level shifter circuit operative to provide two or more different threshold levels in accordance with said spoken word or said unspoken word and based on an input state of the threshold level shifter circuit.

Claim 12 (original): The system of claim 11, the threshold level shifter circuit operative to change the threshold level based on a state of a single digital signal.

Claim 13 (original): The system of claim 11, the threshold level shifter circuit operative to modify the threshold level of the comparator at one or more threshold levels.

Claim 14 (original): The system of claim 11, the threshold level shifter circuit operative to change three threshold levels based on a state of a single digital output having a high impedance state, a low digital state and a high digital state.

Claim 15 (original): The system of claim 11, the threshold level shifter circuit operative to change between three threshold levels based on a state of two digital signals.

Claim 16 (original): The system of claim 11, further comprising a microcontroller programmed to analyze one or more characteristics of the digital pulse waveform and compare the one or more characteristics to stored word profiles associated with a set of words to determine the spoken word from the set of words.

Claim 17 (original): The system of claim 11, further comprising a microcontroller programmed to change the state of the threshold level circuit so that different portions of a speech waveform having different amplitudes can be converted to a digital pulse waveform for analysis of the one or more characteristics.

Claim 18 (original): The system of claim 17, the different portions comprising voiced portions and unvoiced portions.

Claim 19 (original): The system of claim 17, the microcontroller being programmed to determine between a word having a voiced portion and an unvoiced portion and a word having a voiced portion only.

Claim 20 (original): The system of claim 19, the microcontroller being programmed to detect receipt of a voiced portion of a speech waveform, change the threshold level of the comparator through the threshold level circuit upon detecting receipt of a voiced portion and determine receipt of an unvoiced portion.

Claim 21 (original): The system of claim 20, the voiced portion being detected by monitoring amplitude and frequency of the speech waveform and the unvoiced portion being detected by monitoring frequency of the speech waveform.

Claim 22 (original): The system of claim 11 being one of an electronic toy, an educational aid, an entertainment product and a communication system.

Claim 23 (currently amended): A speech recognition system comprising:
means for transforming a spoken word and a unspoken word into a speech waveform;
means for converting the speech waveform into a digital pulse waveform; and
means for shifting a threshold level in accordance with said spoken word or said unspoken word and associated with converting the speech waveform into a digital pulse waveform.

Claim 24 (original): The system of claim 23, further comprising means for analyzing one or more characteristics of the digital pulse waveform and determining the spoken word from a subset of selectable spoken words.

Claims 25-32 (cancelled).